What we claim:

1. A thermal insulated composite wall panel for use in insulated trailers, containers and insulated compartments comprising:

    a. a first substantially gas impermeable liner panel;

    b. a second substantially gas impermeable liner panel having,

        at least one gas impermeable barrier layer, and

        at least one structural polymer resin layer disposed coplanar to and bonded with said barrier layer, thereby forming a laminate liner panel; and

    c. an insulated core layer intermediate said first and said second substantially gas impermeable liner panels.

2. The thermal insulated composite wall panel of claim 1, wherein said polymer resin is polypropylene.

3. The thermal insulated composite wall panel of claim 1, wherein said at least one gas impermeable barrier layer is a metallized polyester film.

4. The thermal insulated composite wall panel of claim 1, wherein said at least one structural polymer resin layer is fiber reinforced.

5. The thermal insulated composite wall panel of claim 4, wherein said fibers are glass.

6. The thermal insulated composite wall panel of claim 1, further comprising a first adhesive layer intermediate said at least one barrier layer and said at least one structural polymer resin layer.

7. The thermal insulated composite wall panel of claim 1, wherein said at least one gas impermeable barrier layer is a metallized polypropylene film.

8. The thermal insulated composite wall panel of claim 1, wherein said at least one gas impermeable barrier layer is a metal foil.

9. The thermal insulated composite wall panel of claim 1, further comprising a scrim layer.

10. The thermal insulated composite wall panel of claim 1, further comprising a surface film layer.

11. The thermal insulated composite wall panel of claim 9, said scrim layer further comprising glass fibers.

12. The thermal insulated composite wall panel of claim 9, wherein said fibers are polyester.

13. The thermal insulated composite wall panel of claim 9, wherein said scrim layer forms a rough exterior surface.

14. The thermal insulated composite wall panel of claim 10, wherein said surface film layer includes polypropylene.

15. The thermal insulated composite wall panel of claim 6, further comprising a second structural polymer resin layer.

16. The thermal insulated composite wall panel of claim 15, further comprising a second adhesive layer intermediate said at least one gas impermeable barrier layer and said second structural polymer resin layer.

17. The thermal insulated composite wall panel of claim 1, wherein said first substantially gas impermeable liner panel is formed from stainless steel.

18. The thermal insulated composite wall panel of claim 1, wherein said first substantially gas impermeable liner panel is formed from aluminum.

19. The thermal insulated composite wall panel of claim 1, wherein said first substantially gas impermeable liner panel is formed from the same laminate as said second substantially gas impermeable liner panel.

20. A method for forming a thermal insulated composite wall panel for use in insulated trailers, containers and insulated compartments comprising:

a. providing a first substantially gas impermeable liner panel;

b. providing a second substantially gas impermeable liner panel having,

at least one gas impermeable barrier layer, and

at least one structural polymer resin layer disposed coplanar to and bonded with said barrier layer, thereby forming a laminate liner panel;

c. inserting an insulated core material between said first and said second substantially gas impermeable liner panels to form a thermal insulated composite wall panel.

21. The method for forming a thermal insulated composite wall panel of claim 20, further comprising adhesively bonding said first and said second substantially gas impermeable liner panels to said insulated core material.

22. The method for forming a thermal insulated composite wall panel of claim 20, further comprising spacing said first and said second substantially gas impermeable liner panels apart from each other to form a channel therebetween and inserting a thermoset core into said channel.

23. The method for forming a thermal insulated composite wall panel of claim 22, wherein said thermoset core is a gas impregnated polyurethane foam.

24. The method for forming a thermal insulated composite wall panel of claim 23, wherein the step of inserting includes blowing said polyurethane foam into said channel.

25. The method for forming a thermal insulated composite wall panel of claim 23, wherein the step of inserting includes pouring said polyurethane foam into said channel.

26. The method for forming a thermal insulated composite wall panel of claim 20, wherein said at least one gas impermeable barrier layer is a metallized polyester film.

27. The method for forming a thermal insulated composite wall panel of claim 20, further comprising providing a first adhesive layer intermediate said at least one barrier layer and said at least one structural polymer resin layer.

28. The method for forming a thermal insulated composite wall panel of claim 27, wherein said at least one gas impermeable barrier layer is a metallized polypropylene film.

29. The method for forming a thermal insulated composite wall panel of claim 27, further comprising providing a second structural polymer resin layer.

30. The method for forming a thermal insulated composite wall panel of claim 29, further comprising providing a second adhesive layer intermediate said at least one gas impermeable barrier layer and said second structural polymer resin layer.

31. The method for forming a thermal insulated composite wall panel of claim 20, wherein said first substantially gas impermeable liner panel is formed from the same laminate as said second substantially gas impermeable liner panel.

32. The method for forming a thermal insulated composite wall panel of claim 20, wherein said at least one structural polymer resin layer is fiber reinforced.

33. The method for forming a thermal insulated composite wall panel of claim 32, wherein said fibers are glass.

34. A cargo compartment pulled by a motorized vehicle, said cargo compartment comprising:

a. a floor supported by the wheeled chassis;

b. a roof; and

c. a first side wall extending vertically between the roof and a side edge of the floor, wherein at least one of said first side wall, said floor and said roof is formed from at least one thermal insulated composite panel having

a first substantially gas impermeable liner panel,

a second substantially gas impermeable liner panel having

a substantially gas impermeable barrier layer, and

a first structural polymer resin layer disposed coplanar to and bonded with said barrier layer, and

an insulated core layer intermediate said first and second substantially gas impermeable liner panels.

35. The cargo compartment of claim 34, wherein said structural polymer resin layer includes polypropylene.

36. The cargo compartment of claim 34, wherein said substantially gas impermeable barrier layer is a metallized polyester film.

37. The cargo compartment of claim 34, wherein said second liner panel further comprises a first adhesive layer intermediate said barrier layer and said structural polymer resin layer.

38. The cargo compartment of claim 34, wherein said substantially gas impermeable barrier layer is a metallized polypropylene film.

39. The cargo compartment of claim 34, wherein said substantially gas impermeable barrier layer is a metal foil.

40. The cargo compartment of claim 39, wherein said second liner panel further comprises an adhesive film layer coplanar with and intermediate said metal foil barrier layer and said structural polymer resin layer.

41. The cargo compartment of claim 34, wherein the second liner panel further comprises a scrim layer disposed on a surface of said second liner panel adjacent to said insulated core layer.

42. The cargo compartment of claim 41, said scrim layer further comprising glass fibers.

43. The cargo compartment of claim 41, wherein said scrim layer forms a rough exterior surface.

44. The cargo compartment of claim 34, wherein said second liner panel is disposed adjacent a cargo area enclosed by said cargo compartment and further comprises a surface film layer facing said cargo area.

45. The cargo compartment of claim 44, wherein said surface film layer is formed of polypropylene.

46. The cargo compartment of claim 37, wherein said second liner panel further comprises a second structural polymer resin layer coplanar with said substantially gas impermeable barrier layer and disposed on an opposite side thereof from said first structural polymer resin layer.

47. The cargo compartment of claim 46, wherein said second structural polymer layer includes polypropylene.

48. The cargo compartment of claim 46, further comprising a second adhesive layer intermediate said substantially gas impermeable barrier layer and said second structural polymer resin layer.

49. The cargo compartment of claim 34, wherein said at least one structural polymer resin layer is fiber reinforced.

50. The cargo compartment of claim 49, wherein said fibers are glass.

51. The cargo compartment of claim 34, wherein said first structural polymer resin layer includes a thermoset material.

52. The cargo compartment of claim 51, wherein said barrier layer is a metal sprayed onto said thermoset material.

53. The cargo compartment of claim 51, wherein said barrier layer is a metal sputtered onto said thermoset material.

54. The cargo compartment of claim 51, wherein said barrier layer is a metallized film adhesively bonded to said thermoset material.

55. The cargo compartment of claim 34, wherein said first substantially gas impermeable liner panel is formed from the same construction as said second gas impermeable liner panel.

56. The cargo compartment of claim 34, wherein said insulated core is gas impregnated polymer foam.

57. The cargo compartment of claim 56, wherein said polymer is polyurethane.

58. A cargo trailer for use with a motorized vehicle, said cargo trailer comprising:

a. a plurality of wheels;

b. a floor supported by the wheels;

c. a roof; and

d. a pair of opposing side walls extending vertically between said roof and respective opposite side edges of said floor, wherein each of said side walls is formed from at least one thermal insulated composite panel having

a first substantially gas impermeable liner panel,

a second substantially gas impermeable liner panel having

a substantially gas impermeable barrier layer, and

a first structural polymer resin layer disposed coplanar to and bonded with said barrier layer, and

an insulated core layer intermediate said first and second substantially gas impermeable liner panels.

59. The cargo trailer of claim 58, wherein said structural polymer resin layer includes polypropylene.

60. The cargo trailer of claim 58, wherein said substantially gas impermeable barrier layer is a metallized polyester film.

61. The cargo trailer of claim 58, wherein said second liner panel further comprises a first adhesive layer intermediate said barrier layer and said structural polymer resin layer.

62. The cargo trailer of claim 58, wherein said substantially gas impermeable barrier layer is a metallized polypropylene film.

63. The cargo trailer of claim 58, wherein said substantially gas impermeable barrier layer is a metal foil.

64. The cargo trailer of claim 58, wherein said second liner panel further comprises a scrim layer disposed on a surface of said second liner panel adjacent to said insulated core layer.

65. The cargo trailer of claim 58, wherein said second liner panel is disposed adjacent a cargo area enclosed by said cargo trailer and further comprises a surface film layer facing said cargo area.

66. The cargo trailer of claim 65, wherein said surface film layer comprises polypropylene.

67. The cargo trailer of claim 61, wherein said second liner panel further comprises a second structural polymer resin layer coplanar with said substantially gas impermeable barrier layer and disposed on an opposite side thereof from said first structural polymer resin layer.

68. The cargo trailer of claim 67, further comprising a second adhesive layer intermediate said substantially gas impermeable barrier layer and said second structural polymer resin layer.

69. The cargo trailer of claim 58, wherein said at least one structural polymer resin layer is fiber reinforced.

70. The cargo trailer of claim 69, wherein said fibers are glass.

71. The cargo trailer of claim 64, said scrim layer further comprising glass fibers.

72. The cargo trailer of claim 64, wherein said scrim layer forms a rough exterior surface.

73. A cargo trailer for use with a motorized vehicle, said cargo trailer comprising:

a. a plurality of wheels;

b. a floor supported by the wheels;

c. a roof; and

d. a pair of opposing side walls extending vertically between said roof and respective opposite side edges of said floor, wherein each of said side walls is formed from at least one thermal insulated composite panel having

a first substantially gas impermeable liner panel,

a second substantially gas impermeable liner panel having

a substantially gas impermeable metallized polymer film layer, and

a first structural polypropylene resin layer disposed coplanar to and bonded with said film layer, and

an insulated core layer intermediate said first and second substantially gas impermeable liner panels.

74. The cargo trailer of claim 73, wherein said second liner panel

a. further comprises a first adhesive layer intermediate said film layer and said structural polypropylene resin layer,

b. further comprises a scrim layer disposed on a surface of said second liner panel adjacent to said insulated core layer, and

c. is disposed adjacent a cargo area enclosed by said cargo trailer and further comprises a surface film layer facing said cargo area.

75. The cargo trailer of claim 74, wherein

a. said second liner panel further comprises a second structural polypropylene resin layer coplanar with said barrier film layer and disposed on an opposite side thereof from said first structural polypropylene resin layer and intermediate said scrim layer and said barrier film layer, and

b. a second adhesive layer is disposed intermediate said barrier film layer and said second structural polypropylene resin layer.

76. The cargo trailer of claim 75, wherein said at least one structural polymer resin layer is fiber reinforced.

77. The cargo trailer of claim 76, wherein said fibers are glass.

78. The cargo trailer of claim 75, said scrim layer further comprising glass fibers.

79. The cargo trailer of claim 75, wherein said scrim layer forms a rough exterior surface.

80. An insulated compartment, said insulated compartment comprising:

a. a floor;

b. a roof; and

c. a first side wall extending vertically between the roof and a side edge of the floor, wherein at least one of said first side wall, said floor and said roof is formed from at least one thermal insulated composite panel having

a first substantially gas impermeable liner panel,

a second substantially gas impermeable liner panel having

a substantially gas impermeable barrier layer, and

a first structural polymer resin layer disposed coplanar to and bonded with said barrier layer, and

an insulated core layer intermediate said first and second substantially gas impermeable liner panels.

81. The cargo compartment of claim 80, wherein said structural polymer resin layer includes polypropylene.

82. The cargo compartment of claim 80, wherein said substantially gas impermeable barrier layer is a metallized polyester film.

83. The cargo compartment of claim 80, wherein said second liner panel further comprises a first adhesive layer intermediate said barrier layer and said structural polymer resin layer.

84. The cargo compartment of claim 80, wherein said substantially gas impermeable barrier layer is a metallized polypropylene film.

85. The cargo compartment of claim 80, wherein said substantially gas impermeable barrier layer is a metal foil.

86. The cargo compartment of claim 85, wherein said second liner panel further comprises an adhesive layer coplanar with and intermediate said metal foil barrier layer and said structural polymer resin layer.

87. The cargo compartment of claim 80, wherein the second liner panel further comprises a scrim layer disposed on a surface of said second liner panel adjacent to said insulated core layer.

88. The cargo compartment of claim 87, said scrim layer further comprising polyester fibers.

89. The cargo compartment of claim 87, wherein said scrim layer forms a rough exterior surface.